

HAJOSI, Gyorgy; VADASZ, J.; GUBA, F.

Electron microscopical studies on cell cultures with modified
preparative technic. Acta morph. hung. 4 no.4:545-549 1954.

1. Elektronenmikroskopische Abteilung des Institutes für Messtechnik
und Instrumentenkunde (Leiter F.Guba) der Ungarischen Akademie der
Wissenschaften und Institut für Histologie und Embryologie (Vorstand
Prof. I. Tóth) der Medizinischen Universität, Budapest.

(ENDAMOEBA, culture
tissue culture, electron microscopy)

(MICROSCOPY, ELECTRON
of Endamoeba tissue culture on collodion membrane)

VADASZ, J., HARMATI, I.

Evaluation of serum fractions of rats deprived of spleen in several generations by means of an "elphograph." In English. p. 131, (ACFA BIOICGICA, Budapest, Hungary). Vol. 5, No. 1/2, 1954.

SO: Monthly List of East European Accessions, (EEAL) LC, Vol. 4, No. 5, May 1955, Uncl.

VADÁSZ J.

1954. Plasma globules of *Salmonella enteritidis* arising under the influence of penicillin and their reversion to the original bacillary forms. J. Vadász and I. Juhász *Nature, Lond.*, 1955, 176, 169 MD
(Inst. of Anatomy and Embryology, and Inst. of Microbiology, Univ. Med. Sch., Budapest).—The agar block method was used and 30–40 I.U. of penicillin was introduced. The behaviour of the bacteria was recorded microcinematographically. The bacteria increased in length and developed spindle-like swellings in the saddle of the body; these burst and the contents subdivided into globules. These globules developed into typical or atypical forms when transferred to penicillin-free blocks. C. H. J. PLAICE.

JUHASZ, Istvan; VADASZ, Janos

Regeneration of filtrable forms of *Salmonella enteritidis* with
the help of blood plasma (fibrin frame). Magy. Tudom. Akad.
Biol. Orv. Oszt. Kozl. 6 no.2:151-153 1955.

1. A Budapesti Orvostudomanyi Egyetem Mikrobiologiai Intezete
es Szovjet- es Fejlodestani Intezete.

(SALMONELLA
enteritides, regen. of filtrable forms in media
containing blood plasma. (Hun))

(PLASMA
in media for filtrable forms of *Salmonella*
enteritides, eff. on regen. (Hun))

(CULTURE MEDIA
containing blood plasma, for regen. of filtrable
forms of *Salmonella enteritidis*. (Hun))

HUTTL, T.,; CSILLAG, A.,; NORVATH, L.,; VADASZ, J.,

On the significance and causes of the variability in pattern of the
dried drop of blood; Bolen's test. Acta med. hung. 8 no.3-4:309-322
1955

1. 2nd department of surgery and institute of histology and
embryology, university medical school, Budapest.

(NEOPLASMS, diagnosis,

Bolen's test)

(SERODIAGNOSIS,

Bolen's test in other dis. than cancer)

VADASZ, J.; JUHASZ, I.

Formation of plasma balls from *Salmonelia enteritides* under the effect of penicillin and their involution into Bacillary form. p. 41. BIOLOGIAI KÖZLEMÉNYEK (Magyar Biológiai Szakosztály) Budapest. Vol. 4, no. 1, 1956.

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 5, no. 12, December 1956.

VADASZ, JANOS.

Mikroszkoppel az elet nyomaban (irtak) Vadasz Janos (es) Kontra Gyorgy.
Budapest, Bibliotheca Konyvkiado, 1957. 139 p. (By microscope in the wake of
life. chiefly illus., bibl.)

SO: Monthly Index of East European Accession (EEAI) LC. Vol. 7, No. 5, 1958

VADASZ, Jozsef, dr.

Certain questions of mail service development. Kolleked
kozl 20 no.44:717-720 1 N '64.

1. Division Chief, Ministry of Transportation and Postal
Affairs, Budapest.

VADASZ, Josef L., okleveles vegyeszmernok

Possibilities for eliminating the danger of coal dust explosions.
Bányi lap 97 no.3:152-159 Mr '64.

1. Central Mine Rescue and Safety Engineering Station, Coal Mining
Trust of Tatabanya, Tatabanya.

VADASZ, Jozsef L., okleveles vegyenzmernok

Experiences in coal dust control in the German Democratic Republic. Banyi lap 98 no.4:251-255 Ap '65.

1. Coal Dust Control Laboratory of the Safety Division of the
Tatabanya Coal Mining Trust, Tatabanya.

VADASZ, K.

ZSOTER, T.; VADASZ, K.

Multiple perforation in intestinal tuberculosis during streptomycin therapy. Orv. hetil., Budapest, 92 no.51:1666-1667 23 Dec 51. (CIML 21:4)

1. Doctors. 2. Second Internal Clinic (Director--Prof. Dr. Gabor Csoniczer) of Szeged Medical University and Surgical Department (Head Physician--Prof. Dr. Denes Szabo), Szeged Municipal Hospital.

VADASZ, Karoly, dr.; RELOWSZKY, Erzsebet, dr.

Amputation in the treatment of Kaposi's sarcoma of the lower
extremity. Orv.hetil. 101 no.47:1682-1683 20 N'60.

1. Szeged Varosi Tanacs Korhaza, Baleseti Sebeszeti Osztaly.
(LEG neopl)
(SARCOMA KAPOSI'S surg)
(AMPUTATION)

VADASZ, L.

"Remarks on a tension-stabilizing circuit with a buffer battery."

p. 523 (Magyar Fizikai Folyoirat) Vol. 5, no. 6, 1957
Budapest, Hungary

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

VADASZ, Laszlo

Cultural review in honor of the liberation. Munka 10 no.3:
13-14 Mr '60.

1. Kommunista Ifjusagi Szovetseg Kozponti Bizottsaga kulturalis
osztalyanak vezetöje.

VADASZ, M. ELEMER.

Foldtortenet es foldfejlodes. Budapest, Akademiai Kiado, 1957. 847 p. (The history and development of earth, illus., maps, bibl, diagrs., graphs, indexes, tables)

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

VADASZ, M. ELEMER

A Dunantul hegyszerkezeti alapvonala. Pecs, Szabadsag Nyomda, 1945.
15 p. (Dunantuli Tudomanyos Intezet (kiadvanyai) 3.sz.) (Structural
elements of the mountains in the Dunantul. bibl., footnotes)

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858320015-8

VADASZ, Miklos

Ultrashort-wave FM adapter for the OIRT and CCIR band (50-100 MHz).
Radiotekhnika 12 no.9:295 S '62.

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858320015-8"

FEKETE , Gyula, vill.mernok; KOKUT, Karoly (Szarvas, Lenin u.38); BECSI,
Jozsef (Kaposfo); VADASZ, Miklos (Budapest)

Remarks about our article "Following the path of a letter."
Radiotechnika 12 no.9:305 S '62.

1. Eszak-dunantuli Aramszolgaltato Vallalat, Gyor (for Fekete).

VADASZ, Sandor

The papal Index. Elet tud 15 no.30:948-951 24 Jl '60.

1. Eotvos Lorand Tudomanyegyetem tudomanyos munkatarsa,
Budapest.

VADASZ, Z.

Blondel and E. Ventura's The Structure of the Distribution of Mineral Products in the World; a book review.

P. 121, (Foldtani Kozlony) Vol. 87, no. 1, Jan./Mar. 1957, Budapest, Hungary

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957

PAJOR, Rezso; FOLLMANN, Piroska; VADASZ, Zsuzsa

Comments on the clinical aspects of epidemic keratoconjunctivitis
Szemeszet 99 no. 1:14-18 Mr '63.

1. A Budapesti Orvostudomanyi Egyetem I. sz. Szemklinikajának
közleménye. (Igazgató: Radnóti Magda egyetemi tanár)
(KERATOCONJUNCTIVITIS) (PATHOLOGY)

L 45519-66 EWT(1) GD

ACC NR: AT6016820 (A) SOURCE CODE: UR/0000/65/000/000/0152/0161

AUTHOR: Glebov, I. A.; Brilliantov, L. B.; Vadaturskiy, V. M.; Kovalenko, V. B.

ORG: none

TITLE: Induction starting of contactless synchronous motors with rotating semiconductor rectifiers

SOURCE: AN SSSR. Institut elektromekhaniki. Teoriya, raschet i issledovaniye vysokoispol'zovannykh elektricheskikh mashin (Theory, design, and research of electrical machinery in constant use). Moscow, Izd-vo Nauka, 1965, 152-161

TOPIC TAGS: synchronous motor, contactless synchronous motor, electric motor, semiconductor rectifier, thyristor

ABSTRACT: As considerable overvoltages arise across rectifiers during induction starting (M. P. Barret, RGE, 1961, no. 9), two methods are suggested for limiting these overvoltages: (1) Permanent shunting of the rotor winding by a linear or nonlinear resistor; the values of an ohmic resistor and a "tervit" varistor and losses incurred by them are calculated for a Soviet-made SDN-1000-750 synchronous motor; (2) Permanent shunting by thyristors (G. M. Rosenberry,

28 Card 1/2

10

L 45519-66

ACC NR: AT6016820

Appl. and Ind., 1960, no. 49); this method was experimentally tested on an exciter model driven by a 30-kw synchronous motor ("Engineer L. M. Vaysman took part in the tests"). It is found that the second method has substantial advantages. However, the thyristors suffer overloads as a result of short-circuit conditions during the pull-in period. This necessitates some measures for limiting the short-circuit currents (such as reducing the exciter magnetic flux, inserting resistors into thyristor circuits, etc.). If the synchronous motor is started with the exciter field-circuit closed, the motor starting torque will be lower in the first method or the pull-in torque will be lower in the second method. Orig. art. has: 4 figures and 6 formulas.

SUB CODE: 09 / SUBM DATE: 04Aug65 / ORIG REF: 004 / OTH REF: 002

ms
Card 2/2

ACC NR: AT6016819

(A)

SOURCE CODE: UR/0000/65/000/000/0148/0151

AUTHOR: Glebov, I. A.; Loginov, S. I.; Kovalenko, V. B.; Vadaturskiy, V. M.

ORG: none

TITLE: Results of an investigation of a contactless synchronous motor with rotating semiconductor rectifiers

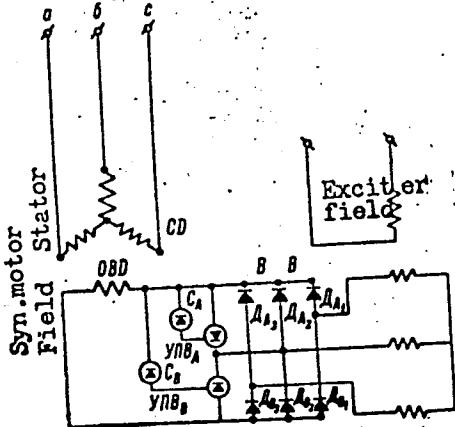
SOURCE: AN SSSR. Institut elektromekhaniki. Teoriya, raschet i issledovaniye vysokoispol'zovannykh elektricheskikh mashin (Theory, design, and research of electrical machinery in constant use). Moscow, Izd-vo Nauka, 1965, 148-151

TOPIC TAGS: synchronous motor, contactless synchronous motor, electric motor, semiconductor rectifier

ABSTRACT: A contactless excitation system intended for a 1000-kw, 6-kv, 113-amp, 750-rpm synchronous motor (whose field winding would be supplied by rotating semiconductor rectifiers) (see figure) was tested by IEM and TsKBKEM institutes. The fundamental difficulty with rectifier breakdown by overvoltages arising during the induction-type starting was overcome by introducing protective "tervit" resistors or silicon thyristors. During the starting period, the positive-half-cycle rotor current

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ACC NR: AT6016819



flows through the rectifiers and the negative-half-cycle current, through the thyristors. The motor behavior under such starting conditions was tested on an actual 1000-kw synchronous motor. Also, the exciter short-circuit through the thyristors at each negative half-cycle, during the pull-in period, was investigated and steps against this short-circuit were developed. A blueprint for the above special exciter was compiled. Orig. art. has: 1 figure and 1 table.

Contactless synchronous motor with
rotating semiconductor rectifiers

SUB CODE: 09 / SUBM DATE: 04Aug65 / ORIG REF: 002

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L 44687-66 WE

ACC NR: AP6005373

(N)

SOURCE CODE: UR/0413/66/000/001/0119/0119

AUTHOR: Vagos, P. V.

ORG: none

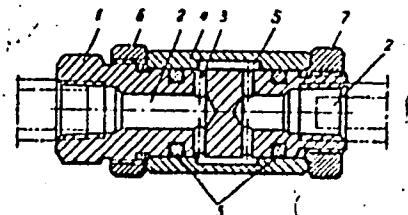
TITLE: An adjustable throttle. Class 47, No. 177718

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 119

TOPIC TAGS: mechanical engineering, engine component, engine auxiliary equipment

ABSTRACT: This Author Certificate presents an adjustable throttle (see Fig. 1).

Fig. 1. 1 - sleeve; 2 - axial canals;
3 - radial openings; 4 - collar;
5 - bore; 6 and 7 - nuts.



To simplify its construction the throttle is made in the form of a sleeve with two

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UDC: 621-225.2.621.6/6.25

L 446E7-66

ACC NR: AP6005373

blind axial canals and with radial openings. The latter are covered with a collar containing a bored recess mounted on the sleeve. The position of the bore along the axis of the sleeve is adjusted by two nuts. The ends of the sleeve are used to connect the throttle to the mechanism regulated by it. Orig. art. has: 1 figure.

SUB CODE: 10/13 SUBM DATE: 30Sep63

hs

Card 2/2

VADAYEV, N.

Distortion of an important principle. Sov. profsoiuzy 6 no. 9:53
(MIRA 11:8)
Ag '58.

1. Nachal'nik otdela kadrov Moskovskogo zavoda vnutrishlifoval'nykh
stankov.
(Bonus system)

L 25653-66 EWT(1)/ETC(f)/EPF(n)-2/EWG(m) IJP(c) AT

ACC NR: AM5028684

Monograph

UR/

54
B4!

Vadenov, A. A.

Theory of turbulent plasma. (Teoriya turbulentnoy plazmy) Moscow, 65.
0114 p. illus., bibliog. (At head of title: Akademiya nauk SSSR. Institut
nauchnoy informatsii) 15,000 copies printed.

Series note: Itogi nauki.

TOPIC TAGS: turbulent plasma, plasma wave, plasma intercation, plasma electromagnetics, plasmon, plasma dynamics

PURPOSE AND COVERAGE: This book presents the problem of the theory of turbulent plasma. On the basis of present methods of describing plasma small fluctuations and the stability of plasma are viewed as well as the theory of turbulent nonlinear movements of rarefied high temperature plasma (the theory of the interaction between waves and particles in plasma, the theory of anomalous diffusion and electrical conductivity, dispersion of electromagnetic waves in turbulent plasma, and others). This book is recommended for physicists specializing in the theory of plasma.

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Ch. V. Interaction of plasma with resonant particles ---53
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Ch. VII. Plasmon-plasmon interaction ---79
Ch. VIII. Strong turbulence ---87
Ch. IX. Coefficients of transfer in turbulent plasma ---90
Ch. X. Dispersion of electromagnetic waves in turbulent plasma ---98
Suppl. I. Weak and strong regimes of the formation of turbulence ---101
Suppl. II. Quasilinear equations for quantum plasma ---104
Suppl. III. Derivation of kinetic equation describing tri-plasmon processes from
equations of hydrodynamics ---107
Suppl. IV. Development of the electrostatic instability of plasma in strong
magnetic fields ---111

SUB CODE: 20/ SUBM DATE: 26Nov65/ ORIG REF: 053/ OTH REF: 040

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20219

S/120/01/011/002/022/025
n073/E335

24,7200(1043,1385,1153)

AUTHORS: Giller, Ya.I., Shmayevskiy, V.Ye. and Vadets, D.I.TITLE: Investigation of the Pseudobinary Section ZnSb-CdSb
by the Debye MethodPERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol. 11,
No. 2, pp. 311 - 313

TEXT: The pseudobinary section between the two semiconductor compounds ZnSb and CdSb contains a number of semiconductor alloys (Refs. 1, 2). Only the extreme compounds of this section have been investigated by X-ray structural analysis, namely, the compounds ZnSb and CdSb (K.E. Almin, Acta chem. scand., 1948, 2, 400 - Ref. 3). The work described in this paper is a first attempt to apply X-ray structural analysis for investigating the entire section under consideration. As starting materials 99.999 and 99.99% Sb were used. According to spectrum analysis the Cd has the following admixtures: $\frac{1}{10}$ thousandths %; Cu tenths %; Ag hundredths % and Ca tenths %. The materials were weighed with an accuracy of 1 mg and mixed in the ratios enumerated in Table 1 (the second and third columns give the

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E073/E335

Investigation of ...

composition in molecular %, the fourth and fifth columns in weight %). Fusion was carried out in porcelain crucibles in an electric muffle furnace under a flux consisting of a mixture of KCl and NaCl. The melt was intensively mixed with a graphite rod and then teemed in an iron mould. Homogenisation was effected in sealed pyrex ampules (these were first evacuated to 10^{-1} to 10^{-2} mm Hg) and following that for 100 hours at 240-270 °C. From the homogenised alloys powder was produced which was tempered in evacuated sealed glass ampules at 200 °C for 50 hours, which were then allowed to cool down with the furnace. From the thus-produced powder, 0.9 mm dia. cylindrical specimens were produced. The investigation was by means of γ - Fe (URS-70) apparatus, using copper radiation without a filter. A voltage of 35 kV, current intensity of 12 mA were applied to the tube, the exposure time being 7 hours. The chamber diameter was 86 mm. Under equal conditions, X-ray patterns of the starting components were produced. The distance between identical lines of the diffraction patterns

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Investigation of

Table 1:

№ образца	Состав образца, молек. %		Состав образца, вес. %	
	ZnSb	CdSb	ZnSb	CdSb
1	100	—	100	—
2	90	10	87,8	12,2
3	80	20	76,2	23,8
4	70	30	65,1	34,9
5	65	35	59,7	40,3
6	60	40	54,5	45,5
7	55	45	49,4	50,6
8	50	50	44,4	55,6
9	45	55	39,5	60,5
10	40	60	34,8	65,2
11	35	65	30,1	69,9
12	30	70	25,5	74,5
13	20	80	16,7	83,3
14	10	90	8,2	91,8
15	—	100	—	100

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Investigation of

Table 2:

Lattice constants Таблица 2

Значения постоянных решетки, кХ

№ образца	a	b	c	V, (кХ)
1	6,145	7,715	7,805	370,085
2	6,170	7,750	7,895	377,470
3	6,190	7,785	7,945	383,060
4	6,230	7,840	7,965	389,235
5	6,245	7,865	7,995	392,915
6	6,250	7,910	8,045	397,790
7	6,290	7,970	8,070	404,690
8	6,295	7,975	8,075	405,460
9	6,310	8,005	8,110	409,660
10	6,310	7,985	8,100	408,045
11	6,330	8,055	8,135	414,620
12	6,340	8,065	8,155	417,035
13	6,375	8,125	8,195	424,395
14	6,400	8,175	8,240	431,090
15	6,415	8,200	8,235	434,210

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Investigation of ...

was measured with an accuracy up to 0.1 mm. The relative intensity of the lines was determined visually by means of a 10-unit scale. Recording (identification) of the X-ray diffraction patterns of ZnSb and CdSb was by the method of selection. The obtained hkl' indices did not contradict the conditions of extinction for the space group D_{2h}^{15} - P_{bca} . No Cd, Zn

and Sb lines were detected on the X-ray diffraction patterns. Comparison of the X-ray diffraction patterns of ZnSb and CdSb with those of intermediate alloys has shown that throughout the entire section the structure of these alloys does not change and the same applies to the space group. This fact enabled choosing indices for the diffraction patterns of the alloys of the entire ZnSb-CdSb section on the basis of the ratio of the intensities of the lines and the interplane distances. The lattice constants a , b , c were calculated by the method of least squares on the basis of general indices for all the alloys starting from $\theta = 25^\circ$. The calculated lattice constants and the determined volume of the elementary cell for all the alloys are entered in Table 2

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Investigation of ...

(lattice constants, kX). The accuracy of the determinations was 0.005 kX. The obtained results, presented in plots as functions of the lattice parameter, Fig. 1, and of the elementary volume, Fig. 2, on the CdSb concentration (molec%), are curves with a hardly noticeable bend for a concentration of about 50 molec% ZnSb. This leads to the assumption of a process of ordering of the solid solution.
There are 2 figures, 2 tables and 3 references:
2 Soviet and 1 non-Soviet.

ASSOCIATION: L'vovskiy gosudarstvennyy universitet
im. Iv. Franko (L'vov State University
im. Iv. Franko)

SUBMITTED: June 27, 1960

Card 6/7

Investigation of

Fig. 1:

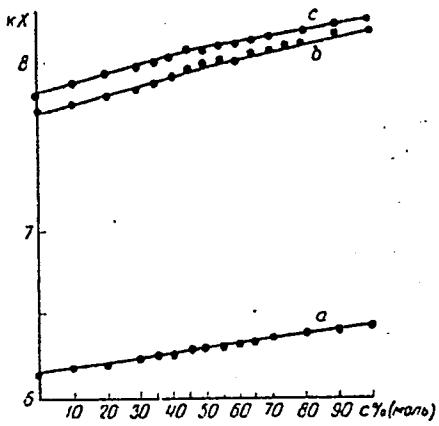


Рис. 1.

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E073/E355

Fig. 2:

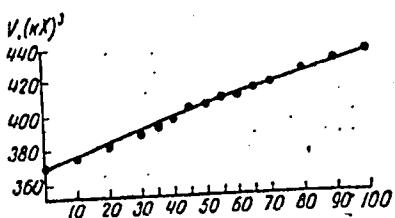


Рис. 2.

VADETSKIY, B.

"Finding Happiness," VoyenIzdat, Moscow, 1956, 184 pp.

Includes chart of early 19th century Antarctic explorations of Lazarev and Bellinghausen.

DRACHEV, Boris Semenovich; VADETSKIY, B.A., red.; LAVRENOVA, N.B., tekhn.
red.

[Toward the eastern shores] K beregam Vostoka. Moskva, Izd-vo
"Morskoi transport," 1961, 96 p. (MIRA 14:10)

1. Pervyy pomoshchnik kapitana parokhoda "Rodina" (for Drachev).
(Voyages and travels)

VADETISKIY Yu.V.

SHALIMOV, I.F.; VADETISKIY, Yu.V.; SAVINA, Z.A., redaktor; POLOSINA, A.S.,
tekhnicheskiy redaktor

[Use of the turbine drill powered by diesel drive] Praktika
turbinnogo burenija na dizel'nom privode. Moskva, Gos. nauchno-
tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1954. 242 p.
(Boring machinery) (MLRA 7:10)

VADETSEKII, Yury Vyacheslavovich, DUBROVINA, N.P., red.; TROFIMOV, A.V.,
tekhn.red.

[Drilling wells with the use of flushing water] Burenie skvazhin
s promyvkoj vodoi. Moskva, Gos. nauchno-tekhn. izd-vo neftelanoi
i gornotoplivnoi lit-ry, 1958, 122 p. (MIRA 11:8)
(Oil well drilling)

VADETSKIY, Yu. V.

"Caving Coefficient and Its Practical Application"

Transactions of the Petroleum Institute, Acad. Sci. USSR, v. 11, Oil Field
Industry, Moscow, Izd-vo AN SSSR, 1958. 346pp.

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858320015-8

VADETSKIY, Yu.V.

Caving coefficient of well walls and its practical application.
Trudy Inst.nefti 11:319-322 '58. (MIRA 11:12)
(Oil well drilling)

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858320015-8"

BABAK, N.P.; VADETSKIY, Yu.V.

Experience of advanced boring specialists. Bezop. truda v prom. 2
no. 6:6 Ju '58. (MIRA 11:?)
(Oil fields--Safety measures)

14(5)

SOV/93-58-12-4/16

AUTHOR: ~~Vadetskiy, Yu. V., Karimov, V.Kh., Grigor'yev, M.N., Ivanov, V.P., Il'yasov, Ye.P.~~

TITLE: New Methods for the Elimination of Intense Flushing Fluid Absorption in Drilling (Novyye metody likvidatsii intensivnogo pogloshcheniya promyvochnoy zhidkosti pri bureniyu skvazhin)

PERIODICAL: Neftyanoye khozyaystvo, 1958, № 12, pp 20-26 (USSR) ³⁶⁻

ABSTRACT: The Tatar oil workers in cooperation with the VNIIET and TatNII Institutes developed successful methods for the elimination of intense flushing fluid absorption in drilling [Ref 1,2,3]. It was determined experimentally that a permeable stratum is best shut off by plugging the channels near the bore of the well and in the case of several permeable formations by plugging the lower stratum first and maintaining a dynamic balance in the well [Ref 4]. This is shown in the case of the Romashkino Oilfield (Fig 1). The negative effect of the upper strata on the cementing process can be minimized by withdrawing the fluid from the well after pumping in the cement slurry. The fluid can be removed either by air lift or by bailing. The calculations for the air lift [Ref

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New Methods for the Elimination (Cont.)

SOV/93-58-12-4/16

3,5,6] are made in seven steps, including the verification of the through-put of the air lift by means of Melikov's formula

$$q_{\text{maks}} = 13.4 F \frac{h^{\frac{3}{2}} d \ln}{L} \sqrt{d - 1.45 F w_s} \left[\text{m}^3/\text{sec} \right], \text{ where } q_{\text{maks}} \text{ is the maximum fluid}$$

through-put of the air lift, F - the area of the cross section of the annular space, in sq m , L - the distance from the mouth of the well to the coupling,

h_{dyn} - the depth of the coupling below the dynamic level, created during the operation of KSE-3M compressors, d - the reduced diameter of the annular cross section, and w_s - the air velocity. The calculations are simplified by using special Tables 1-3. The bailing process is employed under the following conditions,

expressed by $q \leq \frac{60V}{t_{\text{sr}}} \left[\text{m}^3/\text{hr} \right]$ and $T \leq \frac{t_{\text{sr}}}{60} \frac{H}{l_{\text{sr}}}$, where q is the fluid requiring bailing, V - the inside area of one drilling line, in m^3 , t_{sr} - the average time for lifting one drilling line, in minutes, T - the initial setting of the slurry, in hours, H - the depth at which the end of the drill pipe is set, and l_{sr} - the average length of the drilling line. These formulas were applied to a well drilled by a 6" EBSh rig. The Petroleum Institute of the

Card 2/3

New Methods for the Elimination (Cont.)

SOV/93-58-12-4/16

Academy of Sciences USSR determined experimentally that strata of extreme permeability and subject to caving can be shut off with the aid of auxiliary casing strings called "letuchki" (Fig 2). The above techniques for the elimination of flushing fluid absorption in drilling were successfully adopted by the Tatburneft' Trust. They conclude that the techniques for the elimination of fluid absorption must be adapted to the absorption intensity, that when permeability exceeds 100 cu m/hr the stratum be plugged with cement and a dynamic level maintained in the well, and that in cases of extreme permeability and cavitation the strata be shut off with auxiliary casing or bypassed by drilling new bore holes. There are 2 figures, 3 tables, and 6 Soviet references.

Card 3/3

VADETSKIY, Yu. V. Cand Tech Sci -- (diss) "Formation
of landslides during
the sinking of wells, and methods suggested for their prevention. According to
the experience of the Tatarish mines." Mos, 1959. 12 pp (Acad Sci USSR.
(mines at Ya)

Inst of Geology and Working of Combustible Minerals), 150 copies (KL, 52-59, 120)

- 61 -

VADETSKIY, Yury Vyacheslavovich; GAYVORONSKIY, Al'bert Anatol'yevich;
PETROVA, Ye.A., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Controlling the absorption of drilling fluids and the caving
in of walls in well drilling; practices of drillers of Tataria]
Bor'ba s pogloshcheniem promyvochno' zhidkosti i obvalami v
burenii; opyt burovikov Tatarii. Moskva, Gos.nauchno-tekhn.
izd-vo neft. i gorno-toplivnoi lit-ry, 1959. 79 p. (MIRA 12:3)
(Oil well drilling fluids) (Tatar A.S.S.R.--Oil well cementing)

VADETSKIY, Yu.V.

Results of oil and gas prospecting in western Kazakhstan.
Neft. khoz. 40 no.4:7-9 Ap '62. (MIRA 15:5)
(Kazakhstan--Petroleum geology)
(Kazakhstan--Gas, Natural--Geology)

Vnisl'yev, O.

MAYOROV, Semen Mikhaylovich; MIKHAYLOV, Nikolay Nikolayevich;
VADEYEV, O., redaktor; TROYANOVSKAYA, N., tekhnicheskiy
redaktor.

[The Russian federation] Rossiiskaia Federatsiia. Izd. 2-oe
perer. i dop. Moskva, Gos.izd-vo polit.lit-ry, 1955. 213 p.
(Russia) (MLRA 8:12)

PEROV, Vladimir Ivanovich; VADYEV, O., redaktor; MUKHIN, Yu., tekhnicheskij redaktor

[Independent Indonesia] Nezavisimaja Indoneziia. Moskva, Gos. izd-vo
polit. lit-ry, 1956. 39 p.
(MIRA 10:1)
(Indonesia--History)

BOEROVIK, Genrikh Aviezzerovich; VADNYEV, O., red.; DANILINA, A., tekhn.red.

[Report on the new Burma] Reportash is novoi Birmy. Moskva, Gos.
izd-vo polit. lit-ry, 1958. 76 p. (MIRA 11:5)
(Burma--Description and travel)

KRYUKOV, Petr Sergeyevich; VADEYEV, O., red.; DANILINA, A., tekhn.red.

[This must not happen; against imperialist plans for an atomic war] Eto ne dolzhno proizotiti; protiv imperialisticheskikh planov podgotovki atomnoi voiny. Moskva, Gos.izd-vo polit.lit-ry, 1959. 46 p.
(Atomic weapons--International control)

MARK(V, Aleksandr Mikhaylovich; VADEYEV, O., red.; MUKHIN, Yu., tekhn.red.

[Artificial satellite and the present] Sputnik i sovremennost'.
Moskva, Gos.izd-vo polit.lit-ry, 1959. 78 p. (MIRA 12:2)
(Artificial satellites)

MIRSKIY, Zinoviy Yakovlevich; VADEYEV, O., red.; MUKHIN, Yu.

[Rumania of our days] Rumyniia nashikh dnei. Moskva, Gos.
izd-vo polit.lit-ry, 1959. 111 p. (MIRA 12:11)
(Rumania--Economic conditions)

ROMANOV, Aleksey Vladimirovich, zhurnalist; VADEYEV, O., red.; TYUNEYEVA, A.,
tekhn. red.

[America as we saw it; journalist's notes] Amerika, kakoi my es vi-
deli; zapiski zhurnalista. Moskva, Gos. izd-vo polit. lit-ry,
1961. 77 p. (MIRA 14:8)

(United States—Description and travel)

ABRAMOV, Aleksey Sergeyevich; MILOVANOV, I.V., red.; POTEKHIN, I.I., red.;
SHVEDOV, A.A., red.; VADEYEV, O., red.; KLIMOVA, T., tekhn. red.

[Ethiopia, a country that has not been brought to its knees]
Efiopiia - strana, ne vstavshaia na koleni. Moskva, Gos. izd-vo
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(Ethiopia--Description and travel)

FETOV, Vladimir Pavlovich; VADEYEV, O., red.; PETROVSKAYA, E., red.;
DANILINA, A., tekhn. red.

[American imperialism in Africa] Amerikanskii imperializm v
Afrike. Moskva, Gos. izd-vo polit. lit-ry, 1962. 101 p.
(MIRA 15:3)

(United States—Foreign economic relations—Africa)
(Africa—Foreign economic relations—United States)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858320015-8

VADEVKA, R.

Precocious children. Rab. i sial. 34 no.9:19 S '56. (MIRA 11:10)
(Precocity)

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858320015-8"

VADI, V. M.

27346 VADI, V. M. - Klassifikatsiya revmatizma I zaholevaniy organov dvizheniya. V
SP: Nauch. Sessiya (Akad. Nauk Eston. SSR, Ctd-Nie Med. Nauk) 10-11 Dek.
1948 G. Tema: tuberkulez i revmatizm. Tartu, 1949, S. 67-106.-- Na eston.
Yaz. --Rezyume na Rus. yaz.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948

VADIA, V.; INOPIN, Ye.; YUSEF, M.

Electron scattering by nuclei according to the α -particle
model of the nucleus. Zhur. eksp. i teor. fiz. 45 no.4:1164-
1166 O '63. (MIRA 16:11)

COUNTRY	: Czechoslovakia
CATEGORY	: Human and Animal Physiology, Neuromuscular Physiol
AEG. JOUR.	: FZhlBiol., No. 5 1959, No. 22376
AUTHOR	: Vadicka, A.; Gutmann, E.; Bass, A.
INST.	: -
TITLE	: Glycogen Metabolism in the Skeletal Muscle of Rats Subjected to Nociceptive Stimulation.
CRIG. PUB.	: Ceskosl. fysiol, 1957, 6, No. 5, 354--361
ABSTRACT	: Reflex atrophy of the skeletal muscles of the involved extremity was observed in rats subjected to nociceptive stimulation (injection of 0.05 ml of turpentine or smashing the tissues of the foot of a hind limb). The glycogen level in the muscle gradually fell after an initial slight rise; in the first 3 days this fall was greater than after transection of the motor nerves. When this was done there was a retardation of both the utilization and synthesis of glycogen; in the presence of nociceptive stimulation, however, this retardation was greater than af- 1/2
Card:	

COUNTRY	:	Czechoslovakia	T
CATEGORY	:		
ARG. JOUR.	:	RZhBiol., №. 5 1959, №. 22376	
AUTHOR	:		
INST.	:		
TITLE	:		
ORIG. PUB.	:		
ABSTRACT	:	ter transection of the motor nerve. Glycogen metabolism in the presence of nociceptive stimulation depends on reflex depression of the metabolic link between motor nerve fibers and muscular tissue.--V.Gavlichek	
Card:	2/2		

T-71

VADIKOVSKAYA, L.M.; KAUFMAN, I.M.; KONDRATOVA, N.A.; PETROV, S.A.,
ksnd.tekhn.nauk, nauchnyy red.; KHOVANSKIY, I.P., tekhn.red.

[Machine-tractor stations constitute a decisive factor in
collective farm production. Bibliography on the mechanization
of agriculture as an aid to workers in machine-tractor stations]
MTS - reshaiushchaisa sila kolkhoznogo proizvodstva. Rekomenda-
tel'nyi ukazatel' literatury po mekhanizataii sel'skogo kho-
ziaistva v pomoshch' rabotnikam MTS. Nauchnaia red. S.A.Petrova.
Moskva, 1954. 80 p. (MIRA 13:4)

1. Moscow. Publichnaya biblioteka.
(Bibliography--Machine-tractor stations)

VADIKOVSKAYA, Lyudmila Mikhaylovna; DONSKAYA, Galina Kupriyanovna;
OSLIKOVSKAYA, Ye.S., kand.ekon.nauk, nauchnyy red.; SEMENOVA,
V.A., red.; SUSHKO, A.G., red.; KHODAVANSKIY, I.P., tekhn.red.

[Agriculture] Sel'skoe khozisistvo. Moskva. (Biblioteka samo-
obrazovaniia) Vol.1. [The economics and organization of
socialist agriculture in the U.S.S.R.; a bibliography] Ekonomika
i organizatsiia sotsialisticheskogo sel'skogo khozisistva v SSSR;
rekomenedatel'nyi uksazatel' literatury. Nauchnaisa red. E.S. Osliv-
kovskoi. 1957. 102 p.
(Bibliography---Agriculture)

VADIKOVSKAYA, L.M.; VOINOV, M.S.; KIRILLOV, G.N.; KOZLOVA, M.M.;
CHZHAO, A.Ye.; SADOF'YEV, A.F., red.; VASIL'YEVA, L.P..
tekhn.red.

[Animal husbandry; a recommended list of literature]
Zhivotnovodstvo; rekomendatel'nyi ukazatel' literatury.
Moskva, 1959. 241 p. (MIRA 12:9)

1. Moscow. Publichnaya biblioteka.
(Bibliography--Stock and stockbreeding)

FOMINA, Yelena Nikitichna; VADIKOVSKAYA, L.M.; KIRILLOV, G.N.; CHZHAO,
A.Ye.; VASIL'YEVA, E.P., ~~Vasiliy~~, ^{red.}

[For an abundance of agricultural products; survey of literature]
Za obilie produktov sel'skogo khoziaistva; obzory literatury.
Moskva, M-vo kul'tury RSFSR, 1959. 68 p. (MIRA 12:9)

1. Moscow. Publichnaya biblioteka.
(Bibliography--Agriculture)

VADIKOVSKAYA, L.M.; KIRILLOV, G.N.; KOZLOVA, M.M.; CHZHAO, A.Ye.;
TIUTCHEVA, F.M., red.; TSVETAYEVA, Ye.M., red.; POLESITSKAYA,
S.M., tekhn.red.

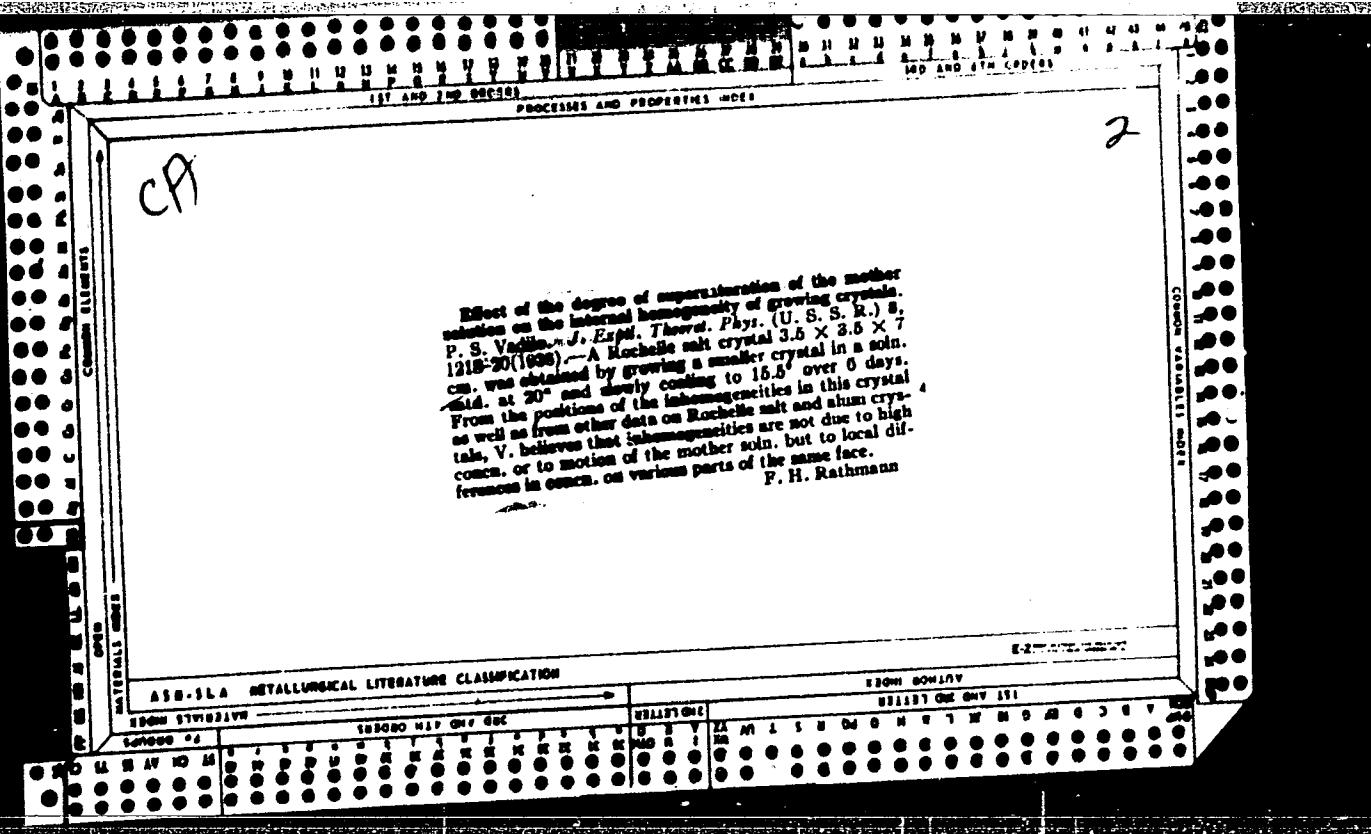
[Plant growing; recommended literature] Rastenievodstvo;
rekomendatel'nyi ukazatel' literatury. Moskva, M-vo kul'tury
RSFSR, 1960. 245 p. (MIRA 13:10)

1. Moscow. Publichnsaya biblioteka.
(Bibliography--Agriculture)

VADIKOVSKAYA, L.M.; DONSKAYA, O.K.; BOCHEVER, A.M., red.; GICHEVA,
M.N., tekhn.red.

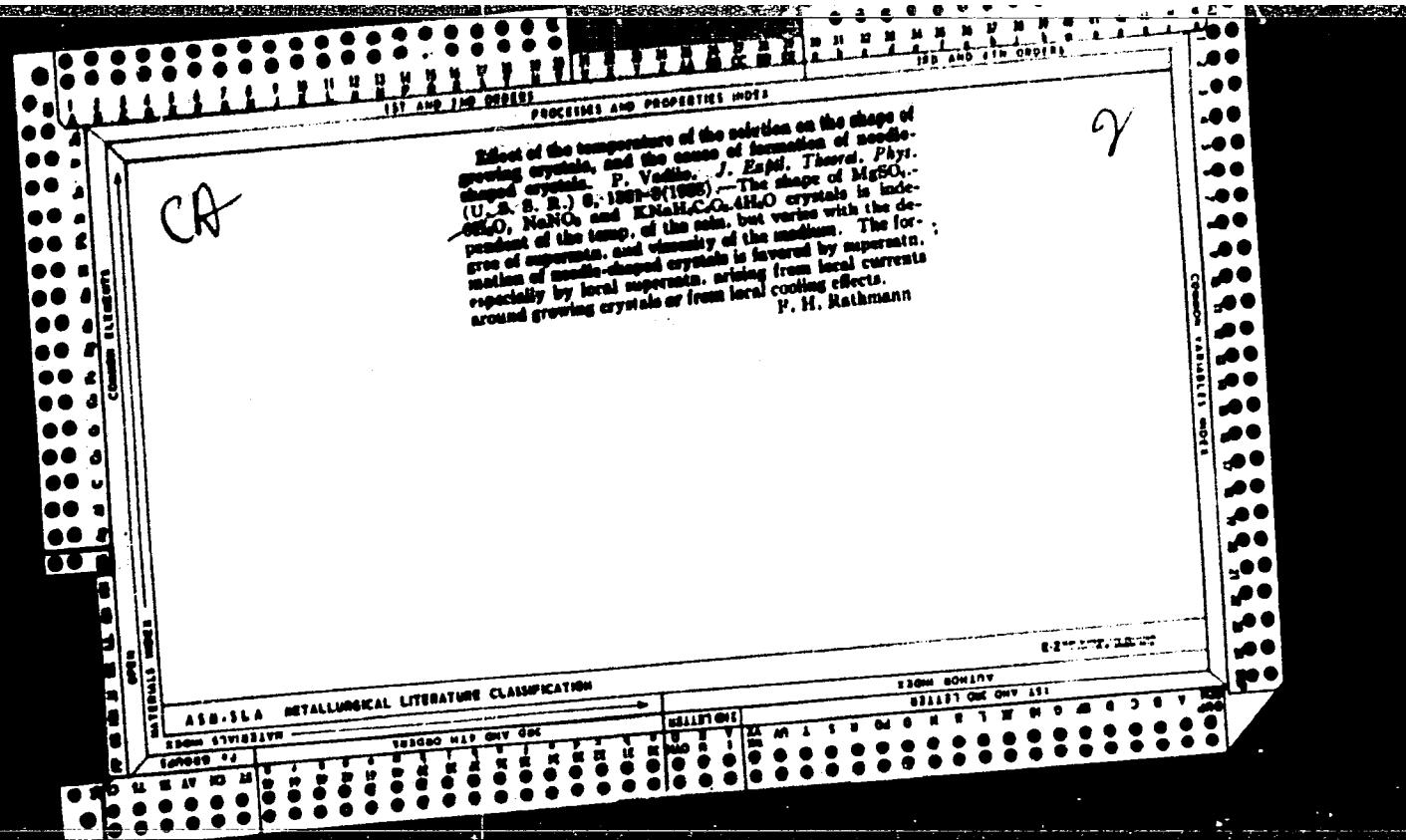
[Economic and organizational aspects of agriculture; recommended
literature] Ekonomika i organizatsiya sel'skokhoziaistvennogo
proizvodstva; rekomendatel'nyi ukazatel' literatury. Moskva,
1960. 62 p. (MIRA 14:2)

1. Moscow. TSentral'naya nauchnaya sel'skokhozyaystvennaya
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Stratification of a solution at various parts of the surface of a growing crystal. I. V. Vasil'ev. J. Exptl. Phys., 18(1956), 1573-1584 (1958).—The rate of growth of subcrystals on various faces of Rochelle salt and alum crystals variously oriented in the mother soln. was studied. The subindividuums are larger far from the center of the faces and nearer the lower edges. Local differences in the cuoen. or layer formation and local motions due to changes in the np. gr. arise because of decrease in concn. near the growing crystal, thus producing irregularities in the growth of different parts of the same crystal face. These differences are least for slow rate of crystallization. In the growth and when the cuoen. of the soln. is kept uniform by stirring.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858320015-8"



Methods of investigating the structure of ice.
 P. S. VABUS (Compt. rend. Acad. Sci. U.R.S.S., 1939, 23, 343-344).—Disadvantages of the usual methods of investigating the structure of ice are reviewed. In a new method the ice is exposed in damp air at a few degrees $>0^\circ$; sublimation ensues and fine crystals, formed over the ice, are oriented according to the orientation of the crystal axes of the specimen selected. Every "sublimed" crystal becomes covered with faces and crystal structure can be determined. In another new method, graph paper or thin textile material is placed on the bottom and side surfaces of a piece of ice and shaded with a soft pencil; the boundaries between separate monocrystals of ice become manifest and lines also appear from which the area of each crystal can be determined.

W. R. A.

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858320015-8"

VADILLO PS.

Mineralogical crystallography. P. S. Vadillo (Kishinev)

C.P. Univ.), Mineralog. Sbornik, L'vov. Geol. Obshchino 4, 35-
43(1950).—Discussion of various aspects of crystal growth,
such as the role of orientation and growth rate on the form of
crystals, the development of epitaxic intergrowths of
quartz and feldspar, and the formation of hollow crystals.

Marie Siegrist

FE
88

VADILO, P.S.

Skeletal growth of crystals. Min.sbor. no.5:299-002 '51.
(MLRA 9:12)

1. Gosuniversitet, Kishinev.
(Crystals)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858320015-8

VADILO, P.S. (Kursk)

Hermetic greenhouses. Est.v shkole no.3:82-83 My-Ap '56.(MLRA 9:8)
(Greenhouses)

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858320015-8"

VADILO, P. (s. Kurak)

Nonshrinking casting. Tekh.mol. 24 no.11:31 N 1956. (MLRA 9:12)
(Steel castings)

VADILO, P.S.

Substances exhibiting epitaxis and their properties. Uch.zap.
(MIRA 12:4)
Kursk.gos.ped.inst. no.4:143-173 '57.
1. Is kafedry geografii Kurskogo gosudarstvennogo pedagogicheskogo
instituta. (Crystals--Growth)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858320015-8

VADILO, P.

VADILO, P., kand.geol-mineral.nauk.

Biosolar distillers. IUn.tekh. 2 no.11:27 M '57. (MIRA 10:11)
(Distillation apparatus)

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858320015-8"

Vadilo, P.S.

76-10-34/34

AUTHOR:

Vadilo, P.S.

TITLE:

On the Crystallization of Ultra Substances (K voprosu o kristalizatsii ul'trachistykh veshchestv)

PERIODICAL:

Zhurnal Fizicheskoy Khimii, 1957, Vol. 31, Nr 10, pp. 2375-2376
(USSR)

ABSTRACT:

It is referred to the paper of L.A. Petrov and B.A. Kalachev in Zhurnal Fizicheskoy Khimii, 1946, 30, 2340, and pointed out that it is not clear whether the authors had worked with a polycrystal or a single crystal. Investigations at potassium chlorid single crystals up to a weight of 1 kg bred according to the Kirovules-method are described here. It is shown that in the formation of subindividuals or dendrite branches arbitrary admixtures of the initial solution (melt) come into the crystal. If no subindividuals are formed at the growing crystal which is the case if the crystal grows slowly, only isomorphous and "epitaxical" admixtures can come into the crystal, the latter only at a concentration at which the eutectic crystallization occurs. There is 1 Slavic reference.

Card 1/2

76-10-34/34

On the Crystallization of Ultra Substances

ASSOCIATION: Pedagogical Institute, Kursk
(Kurskiy pedagogicheskiy institut)

SUBMITTED: February 20, 1957

AVAILABLE: Library of Congress

Card 2/2

SOV-26-58-8-19/51

AUTHOR: Vadilo, P.S., Candidate of Geological-Mineralogical Sciences

TITLE: An Underground Fire in Central Tadzhikistan (Podzemnyy pozhar v tsentral'nom Tadzhikistane)

PERIODICAL: Priroda, 1958, Nr 8, pp 88-91 (USSR)

ABSTRACT: In Tadzhikistan, a coal deposit of 30 km length and 1 km breadth has been burning for centuries. The coal layers are 1 - 7 m thick. Some layers are already burnt out, like that near the mouth of the Iskander-Dar'ya (Figure 1). According to literary sources, the fire has burned for 1,000 years. Calculating the dimensions of the burnt-out layers, a period of 3,000 years is probable. The fire started presumably by spontaneous combustion and is nourished by air in the cracks of the rocks. From holes in the ground, heated air (320°C) escapes. In other holes the gases have a temperature of 40° and 90° and form various deposits. In several places gas with a temperature of 280°C escapes, heating the surrounding ground to 120°C which remains wet, however, since the gases contain a high percentage of sulfuric acid. Caves are formed by the burning of the coal and by former mining of mineral deposits. During the last war, tons of alum were mined here.

Card 1/2

An Underground Fire in Central Tadzhikistan

SOV-26-58-8-19/51

It is recommended that the mineral deposits and the escaping gases be utilized by a chemical plant.
There are 2 maps and 2 photos.

1. Coal--Combustion 2. Coal gas 3. Fire--Geophysical effects

Card 2/2

VADILLO, P. S.

Theory of the crystallization of steel. Rost.krist. 2:233-237
'59.
(Steel)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858320015-8

VADILO, P.S.

Classifying the elements of crystal sculpture. Zap. Vses. min. ob-va
88 no.1:97-99 '59. (MIRA 12:3)
(Crystallography)

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858320015-8"

S/137/62/000/006/016/163
A006/A101

AUTHOR: Vadilo, P. S.

TITLE: On the theory of steel crystallization

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 39, abstract 6V289
(In collection: "Rost kristallov", v. 2, Moscow, AN SSSR, 1959,
233 - 237)

TEXT: The author contradicts a number of statements in the theory of steel crystallization developed by N. I. Khvorinov in his monograph on "Crystallization and heterogeneities of steel". According to Khvorinov, dendrites are formed during the teeming of molten steel into the mold on the periphery of the melt where it is strongly overcooled. In the central portions of the melt the dendrites are not spontaneously generated but only formed from branches of peripheral dendrites, flashed or broken-off by convective or artificially caused liquid steel flows. Experimental data are presented on the crystallization of melts of organic substances and low-melting metals. These data show that the formation of a great number of crystals is connected not with the tearing-off

Card 1/2

S/137/62/000/006/016/163
A006/A101

On the theory of steel crystallization

and the mechanical transfer of dendrite branches, but with the separation of smallest particles from conventional crystals and with their development into independent crystals. It is also shown that strong stirring of the melt promotes uniform temperature distribution and "reproduction" of crystals; as a result the ingot structure is uniform and finegrained and there are no columnar crystals, shrinkage cavities, holes and pores in the ingot. It is considered that the basic mass of nuclei arises as a result of the "reproduction" of several originated crystals under the effect of their mechanical collision or impacts against the mold walls. To obtain ingots without defects, the author recommends to eliminate the zone of columnar crystals by thoroughly stirring the melt; this ensures temperature equalization over all the sections, the transition of generated crystals to all sections of the melt, and intensified reproduction.

P. Arsent'yev

[Abstracter's note: Complete translation]

Card 2/2

12.9500
S/058/62/000/005/080/119
A061/A101

AUTHOR: Vadilo, P. S.

TITLE: Formation of acicular and acicular hollow crystals

PERIODICAL: Referativnyy zhurnal, 'Fizika', no. 5, 1962, 24, abstract 5E195
(V sb. "Rost kristallov. T. 3", Moscow, AN SSSR, 1961, 156 - 158.
Discuss., 214 - 218)

TEXT: Qualitative observations made on the growth of acicular ammonium sulfate crystals are described. The crystals were grown from a solution at 15°C. Minute isometric crystals were produced by shaking the flask with the solution under the same conditions. *✓B*

[Abstracter's note: Complete translation]

Card 1/1

VADILLO, P.S.

Habit of diamond crystals as an indicator of conditions
of their formation. Zap. Vses. min. ob-va 90 no.2:237-2/1
'61. (Diamond crystals) (MIRA 14:9)

L 18975-63 EWT(1)/EWP(q)/EWT(m)/BDS AFFTC/ASD/ESD-3/APGC/IJP(C) WH/JD
ACCESSION NR: AT3001914 S/2912/62/000/000/0198/0200

AUTHOR: Vadilo, P. S.

62

TITLE: Spiral growth of crystals.

SOURCE: Kristallizatsiya i fazovyye perekhody. Minsk, Izd-vo AN BSSR,
1962, 198-200

TOPIC TAGS: crystal, crystallization, crystallography, growth, spiral, vicinal,
quartz, Pamir, trigonal, bipyramid, trapezoheder, potash-alum

ABSTRACT: Following a brief literature survey on the spiral growth of crystals, the paper describes visual and microscopic observations of the vicinals of tens of thousands of crystals of Pamir quartz.¹⁶ Not even one single growth spiral was detected. The lateral sides, but not the lower, of the vicinals of the fundamental crystalline rhomboheders have almost always a curvature that is greater in that direction in which the faces of the trigonal bipyramids and the trigonal trapezoheders are oriented. Additional tests were performed with supersaturated potash-alum solutions into which octahedral crystals were strung up on thin plastic filaments, so that the opposite vertices of each crystal lay along the filament. After a week-long crystallization period the thickness between the opposite faces of the

Card 1/2

L 18975-63

ACCESSION NR: AT3001914

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octaheders increased to 1 cm. The faces were perfectly plane. No vicinal spiral growth or any other defects were detected even under the microscope. It was noted, however, that among a group of subindividuals, the highest subindividuals would develop a planar outgrowth which covered all other subindividuals and established a roof-like new face, underneath which the subindividuals were hidden as in a cavity. It was thus shown that dislocations, whether spiral or nonspiral, disappeared because of the covering effect. It is concluded that the spiral growth of crystals is not the rule, but an exception. Orig. art. has 1 figure.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 16Apr63 ENCL: 00

SUB CODE: CH, PH, MA NO REF SOV: 003 OTHER: 005

Card 2/2

L 18976-63

BDS/EWT(m)/EWP(q)

ASD/AFFTC

JD

S/2912/62/000/000/0200/0208

ACCESSION NR: AT3001915

54

53

AUTHOR: Vadilo, P. S.

TITLE: The cause of formation of the columnar zone of an ingot and of the particular crystallographic orientation of its crystals

SOURCE: Kristallizatsiya i fazovyye perekhody, Minsk, Izd-vo AN BSSR, 1962, 200-208.

TOPIC TAGS: crystal, crystallization, crystallography, crystallographic orientation, columnar, zone, dendrite, dendritic, potash-alum, spherolite, axis of symmetry.

ABSTRACT: This paper describes an experimental investigation intended to clarify the essence of the mechanism of the formation of the columnar zone of an ingot (veins, geoids, concretions, and druses) and of the crystallographic orientation of its crystals with respect to the wall of the mold or a base layer. Glass jars were 3/4 filled with alum-potash powder of a fraction between 0.05 and 0.25 mm. Some jars were placed in a strongly supersaturated (1,000 g per liter), others into a weakly supersaturated (5g/liter) solution of potash alum. In the greatly supersaturated solution a crystal 50 mm in size formed within 15 hours. The fourth-

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L 18976-63

ACCESSION NR: AT3001915

order axis of symmetry of each crystal was perpendicular to the surface of the powder. The crystals were milky-white and had an octahedral face. Each large crystal carried a number of smaller octahedral crystals with fourth-order axes of symmetry deviating less than 10° from the vertical. In a weakly supersaturated solution a transparent crystal formed up to 30 mm within two weeks. The crystal had faces that were octahedral, cubic, and rhombododecahedral. These crystals had a third-order (but no fourth-order) axis of symmetry perpendicular to the surface of the powder. The large crystal carried several smaller crystals which had a third-order axis of symmetry that deviated by $3-10^{\circ}$ from the perpendicular to the powder surface. The experiment shows that the crystallographic orientation of the crystals of the columnar zone of an ingot is determined by the degree of supercooling. Other experiments described here demonstrate that the formation of the columnar or fiber zone of an ingot can be the result of the formation and subsequent growth of spherolites. In conclusion it appears that the crystals of the columnar zone of an ingot and the branches of dendrites of the same substances are elongated in the crystallographic direction only if they grow out of a strongly supercooled liquid. If the formation occurs in a weakly supercooled liquid, then the long axis of the crystals has a crystallographic orientation that is at variance with the orientation of the long axis of the dendritic branches. In such conditions no dendritic branches may form. Orig. art. has 3 figures.

Card 2 / 3

VADILO, P.S.

Absorption of nonisomorphic impurities by a crystal. Zhur. prikl.
(MTRA 17:2)
khim. 36 no.12:2666-2672 D'63.

VADILO, Pavel Savel'yevich

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